

The University of Chicago

GENERAL PROSODY
RHYTHMIC, METRIC, HARMONICS

A PART OF A DISSERTATION SUBMITTED TO
THE FACULTY OF THE DIVISION OF THE
HUMANITIES IN CANDIDACY FOR THE
DEGREE OF DOCTOR OF PHILOSOPHY

COMMITTEE ON LITERATURE

1938

By
ELDER OLSON

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GENERAL PROSODY: AN ABSTRACT

Any statement presupposes a context in which alone it is properly intelligible. In order that the statements about prosody presented here may be intelligible, then, it is necessary first of all to discuss the method which has generated them.

Despite superficial differences of terminology, of statement, and of conclusion, preceding theories of prosody may be said to exhibit a fundamental unity of method in that all derive from a pre-investigative conception of science as universal. In such a conception science is one science, rather than a system of distinct sciences; truths are beyond literal statement, although discourse may direct the mind toward truth; and the pursuit of truth is a theoretically infinite process of dialectic in which the discussion of any one subject matter entails the discussion of all others. Since the subject matter is not distinguished by literal definition, the terms are variables; that which is the constant is the object rather than its sign. The distinctions between departments of knowledge are transcended in two ways: either by analogy or by the assimilation of prosody to some science of which, in a literal analysis, it could not form a part. The treatment of the subject matter is a treatment, thus, which in terms of a literal discussion would be said to be not as such, although it must be recognized that the terms "analogy," "treatment as such," etc., have no meaning in the first of the methods we are here discussing. Similarly, the criteria which develop from this method derive from considerations which a literal method could not accept as proper to the subject matter.

The method of the present essay may be said to be alternative to the first method. Accepting the possibility of literal statement and of literal definition, and distinguishing departments of knowledge, this method operates with the term as the constant, whereas now the object may be said to be the variable, in that it appears as differently signified and considered in distinct sciences. In other words, this method is the consideration of some aspect of an object as isolated and held constant by a

term with a fixed meaning. The attempt here, then, is to treat of prosodic structure as such; precisely what is meant by "as such" must appear from a definition of the term "prosodic structure," by which the discussion is made discrete.

Since the present analysis of prosody is methodologically distinct from preceding theories, obviously it can neither compete with them nor correct them.

Prosodic structure may be defined here as a synthesis of speech-sounds qua speech-sounds into an arrangement sensibly proportional, to the end of the enhancement or embellishment of diction. Prosody, thus, is not in itself a science but rather a part of the analysis of diction in rhetoric and poetics; in its treatment of prosodic structure as such, it must be concerned only with those aspects of that structure which are, in a system of distinct sciences, proper exclusively to rhetoric or to poetics. As part of the analysis of diction it is neither prescriptive, descriptive, nor historical; in other words, it is not a system of rules nor of notations nor a narrative of changes in prosodic conventions, but rather an enumeration of the modes in which speech-sounds may be proportionally combined for the embellishment of diction, together with an explanation of such devices in terms of diction itself. Prosody is, consequently, general to precisely the extent that the literal analysis of diction may be general. Although prosodic structure is not, then, properly intelligible apart from its rhetorical or poetical end, the enumeration of modes of prosodic synthesis may nevertheless, for the present, proceed apart from the consideration of that end.

Prosodic structure may be generally distinguished as of two kinds: rhythmic and harmonic. Both of these are sensibly proportional relations of speech-sounds qua speech-sounds, but they differ in that the proportions are of a different character and in that, as a consequence, the relata of those proportions are differently determinate. The term proportion here has the meaning of an equivalence of relation among speech-sounds considered as speech-sounds; the addition of the word sensible is intended to differentiate relations which are perceptible by sense (here, of course, the auditory sense) from those which are known only by an act of the understanding. Thus, for example, a mathematical proportion or a simile is an intelligible proportion, whereas a

heard proportionality among sounds would be a sensible proportion. The assumption that the sensible relation among the parts of a prosodic structure is that of proportionality, while in a sense a first principle of this discussion, may be defended as follows: (1) the relation which has been generally considered as peculiar to prosodic structure is, in an adequate analysis, statable as a proportion; (2) prosodic structures may be constructed by disposing speech-sounds in proportional arrangement; (3) differences (other than material) of prosodic structure may be stated as a difference in proportions; (4) disposition of speech-sounds into different proportions results in formally different prosodic structures; (5) grammatical, rhetorical, or poetic principles, as these are usually differentiated from the prosodic, cannot be said either to produce or to explain prosodic structure; (6) as a consequence, the formal principle of prosodic structure is either proportion or some unknown principle; but it is unnecessary to assume an unknown principle, since an explanation in terms of proportionality will be sufficient--if the discussion is restricted according to the earlier stipulation. On the assumption that proportionality is the principle, then, prosodic structures may be differentiated according to whether they are proportions having as relata speech-sounds taken as limited in some way by number or to whether they are proportions of likeness and difference in abstraction from any quantitative determination; in other words, according to whether they are quantitative or qualitative. Quantitative proportions will here be termed rhythm; qualitative, harmonic figuration.

Since the analysis of prosodic structures, as of all artificial syntheses, must proceed by a resolution into their material parts, it is necessary to inquire what the elements of rhythmic and harmonic structures may be and to discover how their differentiations may be determinative of possibilities of prosodic structure. The element of anything is that intrinsic material part, formally indivisible, from which anything is first composed; since the matter of prosodic structure is speech-sounds, and since speech-sounds are regulated by grammatical convention, prosodic elements cannot be any utterances but only those which are determinate by grammatical convention; and they must be the first sounds so determinate in respect of those characteristics according to which they may enter into proportion. Now harmonic propor-

tions are proportions according only to what we shall call entity; hence the letter is the element of harmony, since it is the least sound determinate in entity, i.e., the first possible constituent because it is the first differentiated in that respect according to which sounds are constitutive of harmonic figuration; and hence the syllable is the element of rhythm, because it is the first speech-sound differentiated conventionally in all those respects according to which sounds may be constitutive of rhythm. Syllables are differentiated conventionally in five ways, according to pitch, quantity, accent or loudness, entity or tone-color, and position. These five modes of discrimination we shall call the characteristics of the syllable; it is clear that the characteristics are relevant here because they are the only ways in which speech-sounds, as regulated by grammatical convention, can be sensibly in agreement or difference, qua sounds.

Rhythmic structures are divisible into primary and post-primary. Primary rhythms are elementary proportions dependent upon what we shall call emphasis; post-primary rhythms are dependent upon what we shall call demarcation. Emphasis is any distinction among the material parts of a primary rhythmic structure according to which they are constituted as formal parts; hence, since there are five modes of differentiation among speech-sounds, there are five simple ways of constituting emphasis. One of these, however,--position--can never be used by itself throughout a composition and cannot constitute emphasis by combined differentiation; of combined differentiation, consequently, there are only eleven modes. The formal part of an elementary ratio which has emphasis is called the thesis; that which has not, the arsis. Unfortunately the argument and illustration required to support the discussion at this point cannot be given here.

A further distinction must be made between the components of primary rhythmic structure as material and as formal. The material components of such structure are simply the sounds and silences; the formal components are those sounds and silences understood as limited by number and as, therefore, constitutive of the numerical proportion which is rhythm. Since a foot is a ratio of sounds or silences, it is improper in this analysis to speak of a foot as dissyllabic, trisyllabic, etc.; such description is of material, not formal, constitution and would apply to any foot, since in the proper context any collocation of syllables might

be materially constitutive of any foot. Rather a foot must be described formally, according to disposition (the priority or posteriority of thesis to arsis) and according to the number of formal components contained in arsis and thesis; thus a classical dactyl, for instance, is not a trisyllabic foot with either a quantitative or accentual ictus upon the first syllable, but a ratio of two formal components in the thesis to two formal components in the arsis, the thesis preceding. The primary ratio is expounded by univocal feet--feet the sounds of which permit of only one pronunciation which is in accordance with conventional pronunciation; and equivocal feet are understood by analogy with these. The distinction between formal and material components, removes, it may be seen, the necessity of accounting for "irregular" or "mixed" feet. "Irregular rhythm" is, obviously, an antilogy; if rhythm is proportion, the feet are equivalent; if the feet are not equivalent, there cannot be proportion, i.e., rhythm.

Whereas in primary rhythm the formal parts are arsis and thesis, the formal parts in post-primary rhythm are sections, i.e., successions of sounds and silences in some way numerable, and distinguished by various demarcative devices. Demarcation, like emphasis, proceeds according to the characteristics of speech sounds;¹ it is distinct from emphasis, however, in that an emphatic sound sets off itself only, as a formal component (i.e., thesis or arsis) in the ratio, whereas demarcative devices are not themselves emphatic, but serve simply to set off the section of which they form a part; thus, the sounds in an end-rhyme (which is a demarcative device) are not the thesis of which the rest of the line is the arsis. Pitch may be said to effect demarcation when sections are intonationally distinct, as, e.g., in stichomythia; quantity, either when a silence intervenes between sections which are components (this is the caesura) or when a sound is lengthened to signalize the end of a section (e.g., as in the final spondee of hexameters when a syllable normally short is lengthened); entity, in a multiplicity of ways, the most frequently used of which are initial and final rhyme or assonance; accent, too, may possibly be so used. The extraordinary variety of possible demarcative devices, simple and compound, can hardly be suggested apart from examples.

¹Except position. The reasons can scarcely be given here.

Sections are numerable, i.e., measurable, in several ways: (1) according to the number of feet they contain, if primary rhythm is present; (2) according to the number of contained syllables; (3) according to the number of smaller sections they contain, if they contain smaller sections (i.e., as a couplet contains two lines or an octave two quatrains); (4) according to the number of distinguished syllables they contain, such distinction being according to the modes of differentiation (as, e.g., certain alliterative metres are measured according to the number of entitatively distinguished syllables they contain, primary rhythm being absent).

The question of harmonic figuration has been but roughly and tentatively treated in this thesis. The whole discussion here is full of problems that cannot be stated with precision in this brief summary. Harmonic figuration involves, as we have said, entity alone; the relata may be materially the same sounds which, in a particular work, constitute rhythm, but formally they are different, being taken in abstraction from any rhythmic function. The terms "similar," "symmetrical," "equiplex," and "equipollent" serve to describe the figurations. Figurations are said to be similar when they have one or more constituent sounds or cognates of these in common; symmetrical, when in addition to similarity, they have the similar sound or sounds in the same position; equiplex, when they consist of the same number of sounds; equipollent, when they are equiplex, symmetrical, and constituted of sounds which are cognates. Thus "man" is similar to "not," "snowed" to "oh"; "man" is symmetrical with "more"; "snowed" with "bled"; "¹²³man" is equiplex with "^{1 2 3}light" but not with "^{12-3 4}blight" or "^{123 4 5}straight"; "man" is equipollent with "men," "wind" with "wend," or with "went." With this apparatus it is possible to state the various figurations, i.e., proportions, into which entities may enter.

Finally, the criteria by which prosodic structures may be considered emerge when we recall that prosody may be said to have to do with an aspect of diction; prosodic criteria, then, must be related to those of diction. Now, in rhetoric and in poetics, a literal analysis makes three statements concerning diction: (1) that it should be perspicuous; (2) that it should be appropriate; (3) that it should not be mean. If we are to have the prosodic embellishment of diction, then, the prosodic structure clearly cannot be such that through it the diction, perspicuous in itself,

is made obscure, or such that through it the diction, proper and not mean in itself, is made inappropriate and mean. Prosodic structures may cause the obscurity of diction in seven ways: (1) through the emphasis of grammatically unimportant elements or the non-emphasis of the grammatically important; (2) through the separation of elements which grammatically belong together or the combination of elements which should be grammatically distinct; (3) through licenses taken with the form of words to such an extent that they are meaningless; (4) through causing, for rhythmic or harmonic reasons, the omission of words grammatically necessary or the addition of words grammatically superfluous; (5) through such obtrusive elaboration of the structure that meaning goes unregarded; (6) through inversions, for prosodic reasons only, of the proper grammatical order; (7) through the unintelligibility of the structure itself, i.e., the use of so many equivocal feet that the combination of sounds itself is not intelligible as structure. Prosodic structures are inappropriate to the diction when they involve rhythms and harmonics conventionally held to be inappropriate to the kind of diction which the subject-matter requires, or--and this is more important--when they are such that through them the kind of delivery appropriate to the diction becomes impossible. Prosodic structures cause diction to become mean when they are not themselves of the magnitude proper to the diction. The criteria of prosody cannot, however, function as premises from which the accuracy either of the analysis or of the evaluation of a particular structure may be demonstrable.

APPENDIXES

APPENDIX I

Specimens of Analysis

Theories of prosody, as such, fail of their proper end unless the analysis of particular works is possible upon the principles which they advance. There is abundant "theory" in prosodic discussion; there is little actual analysis; yet a theory, if it is to be accepted as an explanation and exposition of that with which it is concerned, must rest its claims upon its explanatory and expository value. Obviously, too, it cannot be a discussion in abstraction from particular prosodic structures: the exposition cannot be intelligible apart from that which it expounds. In other words, as this essay has intimated, prosody is inductive; the prosodic hypothesis is established by particulars, and is finally discarded, if it ever is discarded, because of its inability to analyze particulars. The theorist who cannot or will not illustrate his hypotheses with examples showing that what he asserts as actual or as possible does indeed exist, as possibility or fact, does not deserve serious hearing. The fabrication of a theory which has only logical excellences can be admired by logicians alone.

The generality of this essay, the scope of its concern, can in no way release it from the necessity of exemplification and illustration. Even the most general discussion must be meaningless unless individuals are signified by the general terms which it employs; unless there is such signification, the discussion is literally about nothing. The generalizations which appear in this essay--such, for example, as the enumeration of the characteristics of the prosodic element, together with the consequences which follow upon that enumeration--are possible only because, whatever the structure, the materials of prosody remain constant, and as such present in common certain predeterminations, and because a procedure by perfect induction would reveal no exception to the generalization. Such propositions in this essay

as concern the fact rather than the possibility, however, can be defended only by the exhibition of the fact. The ensuing examination of particular structures, then, does not function here as a mere appendage, as a work of supererogation, but as an integral part of the discussion of prosodic theory.

What is offered here as "analysis" cannot, however, be taken as strictly such. The proper analysis of prosodic structure, as this essay has attempted to show, involves a prior analysis of the poem or the speech; and the development of a theory of poetics or of rhetoric which would make possible such an analysis is no part of the business of this treatise. Analysis here is, then, necessarily incomplete, since in the absence of knowledge of the poem or the speech the structure cannot be really intelligible; nor is evaluation possible when the criteria by which evaluation must proceed are unknown. To say this is not to say that no discussion of the structure is possible here; but it is to say that the possibilities of discussion are very much limited. Here the "analyses" serve simply as illustrations of how the instrument which this essay offers might be used at a purely grammatical level; theirs is not the end proper of prosodic analysis, i.e., the exhibition of the complete structure as relevant to the work; and they must be taken as sufficient, then, not when they seem satisfactory as analysis, but as illustration.

A. The Discovery of Primitive Rhythm

The problem of the discovery of primary rhythm is one of discovering how the spoken sounds are related to each other in such fashion that a schematism of emphatic proportion results. Usually, for obvious reasons, such analysis is attempted, not from the spoken sounds, but from their notation in written signs; there is, then, in such cases, the added problem of determining to what extent certain notational devices, such as those of punctuation and spelling, may be accepted as faithful representation of the schematism of sound. In music, it might be noted, the case is the reverse of that in prosody: musical notation gives formulae for the production of musical tones, stating what tones are to be produced on what instruments, in what order and with what relative intensity and duration, and from such notation the interpretation of the work derives; in prosody, on the other hand, the form of the poem or the significance of the speech must

be hypothesized first from the significances of the words; subsequently the hypothesis of the whole serves, in so far as it is adequate, to clarify the diction and to indicate the proper mode of delivery, ultimately clarifying, through these, the prosodic structure. It is hardly accurate to insist in a literal discussion, then, that prosody considers words without reference to their sense; it is the sense--if we take that term in its fullest meaning--which determines, with respect to a succession of written signs, what the sounds are to be; and without that determination the written signs, as notations of sound, are ambiguous. To attempt prosodic analysis without reference to a poetical or rhetorical hypothesis is, on the other hand, to assume that such notations of sound are not ambiguous; and precisely to the extent to which such an assumption is warranted, analysis is possible.

If, for the sake of what is to be done here, we hold that assumption, i.e., that the written discourse has its normal pronunciation, then it will be necessary to find in the structure certain embodiments of the prosodic proportion which exhibit unequivocally the fundamental prosodic relations of the structure, to find, that is, certain feet the syllables of which can be read in one way only, if the normal pronunciation of them is to be kept. The relations so exhibited are then tested upon the parts which are equivocal, to determine whether according to such relations the parts admit of a normal pronunciation. As an alternative procedure, the relations exhibited, apparently, throughout the structure may be examined for a relation which includes them, or may themselves be tried in turn upon the whole of the work.

Operations upon the following poem may serve to illustrate the process:

- 1 Red river, red river
- 2 Slow flow heat is silence
- 3 No will is still as a river
- 4 Still. Will heat move
- 5 Only through the mocking-bird
- 6 Heard once? Still hills
- 7 Wait. Gates wait. Purple trees,
- 8 White trees, wait, wait,
- 9 Delay, decay. Living, living,
- 10 Never moving. Ever moving
- 11 Iron thoughts came with me
- 12 And go with me;
- 13 Red river, river, river.¹

¹T. S. Eliot, "Virginia," Selected Poems 1909-35 (New York, 1936), p. 172.

The possibility that the primitive rhythm is English amphi-brachic (v-v), as the first line might suggest, is precluded by lines 4-13; it is impossible, for instance, to derive an amphi-brachic rhythm from the successions "Still. Will heat move" and "Iron thoughts came with me," without fundamentally violating any possible normal pronunciation of the words. Line 13, moreover, in re-stating the succession of line 1, makes an alteration that, like the succession "Living, living, Never moving. Ever moving," is unequivocal; if the normal pronunciation is to be kept, a trochaic rhythm alone can be present.

If we test each relation as a trochee (the English trochee is a foot of two formal components, the first of which is the thesis), we shall immediately find many feet which admit of the hypothesis; and the few difficulties may easily be removed. In line 1, for instance, the first and third feet are represented by a single material component functioning as thesis, with either its prolongation or a slight pause functioning as arsis, thus:

Red ʔ river, red ʔ river
 t - a t - a t - a t - a

or:

Red river, red river
 t - a t - a t - a t - a

The thesis is established in each foot, not merely by accent (intensity), but by alliteration (entity). In line 2, almost total similarity indicates "slow" and "flow" as quantitatively equivalent; hence neither is non-emphatic, i.e., each constitutes a thesis, while "is" and "--lence" are non-emphatic with respect to "heat" and "si--," respectively, simply by the grammatical formulae, the copula being normally non-emphatic, the second syllable of "silence" being non-emphatic according to the formula of the word. Thus the line reads:

Slow flow heat is silence
 t-a t-a t---a t-a

the prolongations of "slow" and "flow" acting as arses. In line 3, "No" is emphatic grammatically, as well as by its rhyming with "slow" and "flow" in the preceding line, and "will" and "still" are emphatic likewise by rhyme and by normal pronunciation; while "ri" is emphatic by virtue of its repeated use as thesis as well.

Thus the primary ratios here are:

No will is still as a river
 t-a t---a t-----a t-a

The words "as a" function as arsis of the third trochee, sharing whatever time would be allotted to a single syllable functioning in their stead, i.e., dividing the duration of the formal component which they materially constitute. To insist upon this "sharing" or "dividing" is not to wrench words to suit a rhythmic hypothesis; their quantitative prolongation here would result in an over-emphasis of grammatically unimportant elements, and hence would violate the formulae of pronunciation. Line 4 consists of four sounds each of which permits its prolongation to function as arsis. There is no question here of the same thing being relative to itself; the inception of the sound is not the same thing as its prolongation. In line 5, "through" is more emphatic than "the," articles being normally weak intensively. In line 6, "still" and "hills" rhyme, while "heard" rhymes with "bird" in the preceding line; "once" is emphatic grammatically. In line 7, "gates" would appear more emphatic than "wait," though the latter is recurrent. Line 9 presents the difficulty of a material component preceding the thesis, in "delay" and "decay"; the preliminary syllables, however, function simply as appoggiaturas and not as arses; consequently there is no "reversal of feet." All other lines are sufficiently clear.

The primitive rhythm, then, may be symbolized thus:

Red river, red river
 t-a t-a t-a t-a

Slow flow heat is silence
 t-a t-a t---a t-a

No will is still as a river
 t-a t---a t-----a t-a

Still. Will heat move
 t-a t-a t-a t-a

Only through the mocking-bird
 t-a t-----a t--a t-a

Heard once? Still hills

t--a t-a t--a t--a

Wait. Gates wait. Purple trees,

t-a t----a t--a t-a

White trees, wait, wait,

t-a t-a t-a t-a

Delay, decay. Living, living,

t-t-a t-t-a t--a t--a

Never moving. Ever moving

t-a t--a t-a t--a

Iron thoughts came with me

t-a t---a t---a t-a

And go with me:

t-a t-a t-a t-a

Red river, river, river.

t-a t-a t-a t-a

A second example may show more clearly some of the difficulties which may be encountered in the statement of primitive rhythm:

1. Glory be to God for dappled things--

(.)
a---t a--t a--t a---t a---t

2. For skies of couple-colour as a brinded cow;

.
a---t a---t a---t a---t a---t

3. For rose-moles all in stipple upon trout that swim;

.
a---t a---t a---t a---t a---t

4. Fresh fire-coal chestnut-falls; finches' wings;

a---t a---t a---t (.) . . .
a---t a---t a---t a---t a---t

5. Landscape plotted and pieced--fold, fallow, and plough;

(.)
a---t a-----t a---t a---t a-----t

6. And all trades, their gear and tackle and trim.

a--t a---t a-----t a-----t a---t

7. All things counter, original, spare, strange;
 (.)
 a--t a-----t a-t a-t a-----t
8. Whatever is fickle, freckled (who knows how?)

 a--t a--t a-----t a-----t a-----t
9. With swift, slow; sweet, sour; adazzle, dim;

 a-----t a-----t a-----t a--t a-----t
10. He fathers-forth whose beauty is past change:
 (.)
 a--t a-----t a-----t a--t a-----t
11. Praise him.¹
 .
 a-----t

In line 1, the arsis of the first foot is unrepresented materially save by the silence preceding the poem, and "be" is emphatic with respect to the last syllable of "glory." In line 2, the two syllables of "colour" function as one formal component, sharing the time of the thesis; similarly "as" and "a" function as one, the succeeding arsis; in line 3, "stipple" functions as "colour," "upon" functions as "as a," the grammatical accent of the first syllable of "upon" being cancelled, as frequently happens when prepositions and conjunctions are unimportant for the sense. Line 4 presents no difficulty save that the arsis of the fourth foot is materially represented by a substitutional pause coincident with a primary caesura. Similarly line 5 has its first arsis represented by a substitutional pause coincident with the secondary caesura separating it from the preceding line; the two syllables of "plotted" divide the time of the second thesis; "fold" becomes the arsis of the fourth foot simply by position, and in the fifth foot the second syllable of "fallow" and "and" share the time of the arsis. In line 6, "all" (marked with a heavy accent by the poet) functions in its inception as thesis of the first foot; in its prolongation, as arsis of the second. Except that two syllables share the thesis of the fourth foot, the line is otherwise easily intelligible. A more detailed analysis of the first two lines may further clarify the structure:

¹G. M. Hopkins, "Pied Beauty," Poems of Gerard Manley Hopkins, ed. Robert Bridges (Oxford, 1930), p. 30.

Line 1:

a.--The first syllable of "glory" is emphatic with respect to an assumed initial pause. That such a pause may be assumed is clear from the fact that any syllable substituted before "glory" --e.g., "great" or "O"--will function as arsis, showing that such a place does exist in the rhythm, inasmuch as no change in the rhythm results from the substitution. There is nothing unwarranted in such an assumption: rhythm in verse-structure employs the elements of discourse, and a pause is an element in discourse. "Pause" is taken here, of course, not in the sense of an interruption, but of delay in attack.

Any syllable is emphatic with respect to a pause, save when the pause is positionally emphatic.

b.--"Be" is emphatic with respect to the second syllable of "glory" because normally any grammatical element, unless positionally non-emphatic, is emphatic with respect to post-tonic syllables of polysyllables not secondarily stressed. As a thesis, "be" is of course less pronounced than any other in the line; but it is not requisite that all theses be of equal grammatical accent; the emphatic distinction is, as we have said, relative.

c.--"God" is emphatic in respect to "to" by grammatical accent and by its entitative similarity with the thesis of the first foot. "Dappled" and "things" are emphatic by virtue of grammatical accent and their similarity with each other.

Line 2:

a.--"Skies" is emphatic grammatically and by entitative similarity with succeeding theses of the line (k in "couple-color," "cow").

b.--The first syllable of "couple" is grammatically emphatic; in addition it is similar to "skies" and "cow" and equipollent with the first syllable of "colour," which is emphatic for the same reasons. The second syllable of "colour" is considered as part of the thesis, rather than of the arsis, because a single syllable may be substituted for the dissyllable without effecting any change in the rhythmic ratio of any other elements in the line. The words "as a" are taken as the arsis, similarly, because the substitution of a monosyllable, e.g., "as" merely, does not effect any change in any other parts of the line. The

possibility of such substitution underlies all indications here of "sharing"; henceforth such indication will proceed without explanation.

c.--The first syllable of "brinded" forms the fourth thesis by virtue of its grammatical accent and by entitative similarity with a previous thesis ("things" [nasal short i]). The short i, sometimes unnasalized, serves as entitative reinforcement of the grammatical accent throughout the theses of the poem; "things," "brinded," "stipple," "swim," "finches," "wings," "trim," "things," "original," "fickle," "swift," "dim," "is," "him."

d.--The last thesis of the line ("cow") is emphatic grammatically and entitatively ("trout," "plough," "counter," "how," "sour"). The whole structure depends, of course, as this partial analysis indicates, upon intensity and entity.

We may diagram the primitive rhythm of three other specimens:

(1)

1. 'Is there anybody there?' said the Traveller,
 $\begin{array}{ccccccc} \cdot & & \cdot & & \cdot & & \cdot \\ a-----t & a-----t & a-----t \end{array}$
2. Knocking on the moonlit door;
 (.) $\begin{array}{ccccccc} \cdot & & \cdot & & \cdot & & \cdot \\ a-----t & a-----t & a---t \end{array}$
3. And his horse in the silence champed the grasses
 $\begin{array}{ccccccc} \cdot & & \cdot & & \cdot & & \cdot \\ a-----t & a-----t & a-----t & a-----t \end{array}$
4. Of the forest's ferny floor:
 $\begin{array}{ccccccc} \cdot & & \cdot & & \cdot & & \cdot \\ a-----t & a-----t & a---t \end{array}$
5. And a bird flew up out of the turret
 $\begin{array}{ccccccc} \cdot & & \cdot & & \cdot & & \cdot \\ a-----t & a-----t & a-----t \end{array}$
6. Above the Traveller's head;
 $\begin{array}{ccccccc} \cdot & \cdot & & \cdot & & \cdot & \\ a-t & a-----t & a-----t \end{array}$
7. And he smote upon the door again a second time;
 $\begin{array}{ccccccc} \cdot & & \cdot & & \cdot & & \cdot \\ a-----t & a-----t & a---t & a-----t \end{array}$
8. 'Is there anybody there?' he said.
 $\begin{array}{ccccccc} \cdot & & \cdot & & \cdot & & \cdot \\ a-----t & a-----t & a---t \end{array}$

9. But no one descended to the Traveller;

 a----t a---t a-----t
10. No head from the leaf-fringed sill

 a---t a-----t a-----t
11. Leaned over and looked into his grey eyes

 a-----t a-----t a-----t
12. Where he stood perplexed and still.

 a-----t a---t a---t
13. But only a host of phantom listeners

 a--t a---t a-----t a---t
14. That dwelt in the lone house then

 a-----t a-----t a-----t
15. Stood listening in the quiet of the moonlight

 a-----t a-----t a-----t
16. To that voice from the world of men;

 a-----t a-----t a---t
17. Stood thronging the faint moonbeams on the dark stair,

 a-----t a-----t a---t a-----t
18. That goes down to the empty hall,

 a-----t a---t a---t
19. Hearkening in an air stirred and shaken
 (.)
 a---t a---t a---t a---t
20. By the lonely Traveller's call.

 a-----t a---t a-----t
21. And he felt in his heart their strangeness,

 a---t a-----t a-----t
22. Their stillness answering his cry,

 a-----t a---t a---t
23. While his horse moved, cropping the dark turf,

 a-----t a-----t a-----t

24. 'Neath a starred and leafy sky;

 a-----t a----t a--t
25. For he suddenly smote on the door, even

 a----t a-----t a-----t
26. Louder, and lifted his head:--
 (.)
 a--t a-----t a-----t
27. 'Tell them I came and no one answered,
 (.)
 a-----t a--t a--t a--t
28. 'That I kept my word,' he said.
 . . .
 a-----t a--t a--t
29. Never the least stir made the listeners,
 (.)
 a--t a-----t a-----t
30. Though every word he spake
 . . .
 a--t a--t a--t
31. Fell echoing through the shadowiness of the still house

 a--t a-----t a-----t
32. From the one man left awake:

 a-----t a--t a--t
33. Ay, they heard his foot upon the stirrup,

 a-----t a--t a-----t
34. And the sound of iron on stone
 . . .
 a-----t a--t a--t
35. And how the silence surged softly backward

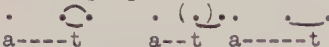
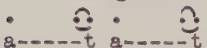
 a-----t a-----t a--t
36. When the plunging hoofs were gone.¹

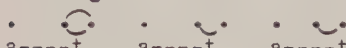
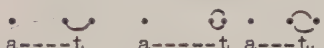
 a-----t a--t a--t

¹Walter de la Mare, "The Listeners," in The Listeners and Other Poems (New York, 1916), p. 64.

(2)

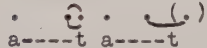
1. Vor seinem Löwengarten,

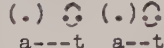
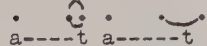
2. Das Kampfspiel zu erwarten,

3. Sass König Franz,

4. Und um ihn die Grossen der Krone,

5. Und rings auf hohem Balkone

6. Die Damen in schönem Kranz.

7. Und wie er winkt mit dem Finger,

8. Aufthut sich der weite Zwinger,

9. Und hinein mit bedächtigem Schritt

10. Ein Löwe tritt

11. Und sieht sich stumm

12. Rings um,

13. Mit langem Gähnen

14. Und schüttelt die Mähnen


15. Und streckt die Glieder

· · · ·
a-----t a-----t

16. Und legt sich nieder.

· · · ·
a-----t a-----t

17. Und der König winkt wieder,

· · · ·
a-----t a-----t

18. Da öffnet sich behend

· · · ·
a---t a---t a---t

19. Ein zweites Thor,

· · ·
a-----t a-----t

20. Daraus rennt

· · ·
a---t a---t

21. Mit wildem Sprunge

· · ·
a-----t a-----t

22. Ein Tiger hervor.

· · · ·
a---t a---t

23. Wie der den Löwen erschaut,

· · · ·
a-----t a-----t a-----t

24. Brüllt er laut,

(.) · ·
a-----t a---t

25. Schlägt mit dem Schweif

(.) · ·
a-----t a-----t

26. Einen furchtbaren Reif

· · · ·
a-----t a---t

27. Und recket die Zunge,

· · · ·
a-----t a-----t

28. Und im Kreise scheu

· · · ·
a-----t a-----t

29. Umgeht er den Leu

· · ·
a---t a---t

30. Grimmig schnurrend,

(.)  . 
a-----t a-----t

31. Drauf streckt er sich murrend

.  . 
a-----t a-----t

32. Zur seite nieder.

.  . 
a-----t a-----t

33. Und der König winkt wieder,

.  . 
a-----t a-----t

34. Da speit das doppelt geöffnete Haus

.  .  .  . 
a-----t a-----t a--t a--t

35. Zwei Leoparden auf einmal aus,

(.)  .  .  . 
a-----t a-----t a--t a--t

36. Die stürzen mit mutiger Kampfbegier

.  .  .  . 
a-----t a-----t a-----t a--t

37. Auf das Tigertier;

.  . 
a-----t a--t

38. Das packt sie mit seinen grimmigen Tatzen,

.  .  .  . 
a-----t a-----t a-----t a-----t

39. Und der Leu mit Gebrüll

.  . 
a-----t a--t

40. Richtet sich auf, da wird's still;

(.)  .  (.) 
a-----t a-----t a-----t

41. Und herum im Kreis,

.  . 
a-----t a-----t

42. Von Mordsucht heiss,

.  . 
a-----t a-----t

43. Lagern sich die greulichen Katzen. . . .¹

(.)  .  .  . 
a--t a-----t a-----t a-----t

¹Friedrich Schiller, "Der Handschuh."

(3)

Ar-ma vi-rum-que can-o //Tro- iae qui pri- mus ab o- ris
 t-----a t-----a t-----a t-----a t-----a t-----a
 I- ta-li- am fa-to pro-fu-gus// La-vi-niā-que ve- nit
 t-----a t-----a t-----a t-----a t-----a t-----a
 li- to- ra, mul- tum il- lē et ter ris// iac- ta- tus et al-to
 t-----a t-----a t-----a t-----a t-----a t-----a
 vi su-pe-rum // sae-vae me-mo-rem Iu-no-nis ob i-ram
 t-----a t-----a t-----a t-----a t-----a t-----a
 mul-ta quo-que et bel-lo pas-sus// dum con-de-ret ur-bem
 t-----a t-----a t-----a t-----a t-----a t-----a
 in-fer-ret-que de- os La-ti-o, // ge-nus un-de La-ti-num
 t-----a t-----a t-----a t-----a t-----a t-----a
 Al-ba-ni-que pa-tres, // at-que al-tae moe-ni-a Ro-mae¹
 t-----a t-----a t-----a t-----a t-----a t-----a

B. Post-Primary Rhythm

1. Twice or thrice had I loved thee
 (.)
 a--t a---t a--t a---t
2. Before I knew thy face or name;

 a--t a--t a--t a--t
3. So in a voice, so in a shapeless flame
 (.)
 a--t a---t a--t a---t a---t
4. Angels affect us oft, and worshipt be.
 (.)
 a---t a--t a--t a---t a---t
5. Still when to where thou wert, I came,
 (.)
 a---t a---t a--t a--t

¹Virgil, The Aeneid, Bk. I, ll. 1-7.

6. Some lovely glorious nothing did I see;

 a----t a----t a----t a---t a--t
7. But since my soul, whose child love is

 a----t a---t a-----t a---t
8. Takes limbes of flesh, and else could nothing do,

 a-----t a---t a---t a-----t a---t
9. More subtile than the parent is,

 a-----t a-----t a---t a---t
10. Love must not be, but take a body too.

 a----t a---t a---t a--t a--t
11. And therefore what thou wert, and who,

 a----t a-----t a---t a-----t
12. I bid love ask, and now

 a--t a---t a---t
13. That it assume thy body, I allow,

 a---t a---t a---t a--t a--t
14. And fix itself in thy lip, eye, and brow.

 a---t a---t a---t a---t a-----t
15. Whilst thus to ballast love I thought,

 a-----t a--t a-----t a---t
16. And so more steadily to have gone,

 a---t a-----t a--t a-----t
17. With wares which would sink admiration

 a----t a-----t a---t a--t a--t
18. I saw I had love's pinnace overfraught.

 a---t a--t a-----t a---t a---t
19. Every thy hair, for love to worke upon
 (.).
 a--t a---t a-----t a--t a--t
20. Is much too much, some fitter must be sought,

 a---t a---t a-----t a---t a---t

21. For nor in nothing, nor in things

 a---t a--t a----t a---t
22. Extreme and scattering bright can love inhere.

 a---t a----t a-----t a---t a---t
23. Then as an Angel face and wings
 (.)
 a---t a---t a---t a---t
24. Of air, not pure as it, yet pure, doth weare,

 a---t a---t a---t a---t a---t
25. So thy love may be my love's sphere;

 a---t a---t a---t a-----t
26. Just such disparitie
 (.)
 a---t a-----t a-t
27. As is twixt air and angels' purity,

 a--t a----t a---t a-----t a-t
28. Twixt women's love, and men's, will ever be.¹

 a-----t a-----t a---t a---t a---t

1. Discussion of the Primary Rhythm

Line 1:

The first two theses are formed by syllables receiving grammatical accent as well as entitative homophony ("twice"-- "thrice"). Ordinarily, perhaps, the line would be spoken "Twice or thrice had I loved thee"; here the sense, however, is certainly not one of insistence upon the fact of loving, but one of expressed astonishment that "I" should have loved "thee," "before I knew thy face or name." As a consequence of the sense, "I" and "thee" receive grammatical accent and constitute, thus, the third and fourth theses respectively. The grammatical accent of each is reinforced, according to Donne's wont; the third thesis by the entitative similarity of its material component with those of the

¹John Donne, Air and Angels, in Complete Works, edited by John Hayward (London, 1932), p. 15.

first two theses, the fourth thesis by the use of its syllable as a demarcative device ("thee"--"be"--"see").

Line 2:

Here the grammatical accent falls upon "knew" rather than upon "I" or "thy," since the sense is that love was prior to any knowledge of the beloved; there is no longer the emphasis upon love as a relation between two persons. The theses of this line, thus, are all established grammatically and reinforced entitatively, despite the entitative agreement of the second and third arses with the first three theses of line 1. The first thesis has alliteration with the third ("--fore," "face"); the second is similar to the first two theses of line 1 ("twice," "thrice," "face") and to the fourth thesis of line 2 ("face," "name").

Line 3:

Grammatical accent again establishes the theses of the line, entitatively reinforced as before. The first and third theses are equipollent; the second ("voice") is symmetrical with "face" and similar to "twice" and "thrice"; the fourth has cognate alliteration with the first and third theses (sh, s) and vowel similarity with the fifth thesis ("shapeless," "flame"). The fifth thesis has obvious entitative relations with preceding and subsequent syllables ("face," "name," "angels," "came," "affect," "oft").

Line 4:

The theses are grammatically established and reinforced with entitative affinities already pointed out. The second syllable of "angels" is classed as a material component of the thesis rather than of the arsis because it shortens the duration of the first syllable of "angels" rather than the first syllable of "affect."

Line 5:

The theses are all grammatically established and entitatively reinforced: "still" is similar to "twice," and "thrice," "face," "so," "shapeless," "flame," "affect," and "oft"; "where" and "wert" have similarity with "worshipt"; and "came" has obvious similarity with "flame" and "name," being in fact composed of the

rhyme-sound and the k-sound announced in the fourth line ("affect").

The method of analyzing the primitive rhythm is perhaps sufficiently illustrated. It must be remembered, however, that all theses are not equally emphatic, nor are all arses; nor is every foot an equal interval of time. The first caveat here would apply to such feet as those of line 8, where an easily traceable entitative reinforcement of both theses and arses, together with a quantitative reinforcement caused by the complexity of the syllables involved, results in a "strong" line, i.e., a line in which the arses are relatively stronger than those of surrounding lines; such lines give the appearance of consisting of many theses, although actually they contain only the proper number. The second caveat would apply to such feet as the final two of line 14; "lip" and "eye" are of equal grammatical importance; the distinction between them, thus, is not of intensity ("accent") but of pitch and quantity, because of the heightening intonation and increasing quantity conventionally used in English in series constructions. The use of monosyllables which do not permit of enclitic or proclitic assimilation to each other similarly increases the quantity of feet in which they appear; e.g., such lines as the following would seem "slower" than certain others to the reader:

But since my soul, whose child love is,

Takes limbes of flesh and else could nothing do.

Love must not be, but take a body too.

I bid love ask, and now.

2. Discussion of the Post-Primary Rhythm

The post-primary rhythms here are of three orders: the first order being a proportion between secondary caesural divisions, the second being a proportion between aggregates of such divisions, the third being a proportion between tertiary caesural divisions, or stanzas.

The rhythm of the first order arises from the contrasting, i.e., the statement in ratio, of metrical divisions. Metre, as the foregoing discussion has made clear, is the division of rhythm, which is continuous, into sections, either by caesura or

by some other demarcative device; and such sections are measured according to the greatest rhythmical interval which they contain. The term "greatest rhythmical interval" perhaps requires explanation. Conventional prosody has, so far as I have been able to determine, completely ignored the possibility of superimposition of rhythms; although Hopkins mentions the "mounting" of rhythm upon rhythm, the term is used to indicate the introduction, into a rhythm, of collocations of material components which seem to be constitutive of a different rhythm. The sense in which the term is used here may best be made clear by an illustration. The following stanza is in simple iambic tetrameter:

The bird upon the twig in spring
Heigh-ho! of his joy doth sing.

The use of a different entitative structure, however, may superimpose upon the primitive rhythm a second order of primary rhythm:

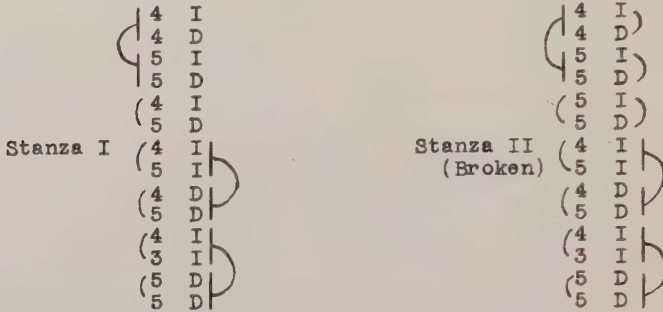
The bird upon the board in spring
Heigh-ho! in highest heart doth sing.

In my consideration the rhythm has been changed, together with the metre: where previously we had iambic tetrameter, we now have a paeonic dimeter superimposed upon the primitive iambs; and the paeons would be called here the "greatest primary rhythmic interval," as including the iambic intervals, and as a consequence the metre is properly characterized as duple.

This fundamental matter clear, we may say of Air and Angels that, in the absence of any such superimposition, the metres are measured by the number of primary ratios in each line (secondary caesural division); we have here, thus, metrical divisions which stand in the ratio of 4 : 5, although the 4-lines are sometimes analyzed into $2 = 2$, and the 5-lines into $2 = 3$. Lines 1 and 2 present two sections of 4-metre against the two sections of 5-metre in lines 3 and 4; and line 5 again states 4-metre against the 5-metre of line 6. (In the second stanza, however, the ratio is broken, 5-metre being stated in both line 5 and line 6.) In both stanzas the 5-metre and 4-metre are analyzed, as we have said, by strong primary caesurae: such analysis occurs, for instance, in lines 3 and 4 of stanza one, and in lines 5 and 6 of stanza two; and the 3-metre derived by the divi-

sion of the 5-metre is stated as a secondary caesural division in line 12 of each stanza. The stanzaic schema closes with a double statement in 5-metre.

If now we inquire into the intonations of the respective lines, we may diagram (using I for inceptive intonation, D for desitive) the pattern of the stanzas as follows:



Since the stanzas possess the same formal parts (with the exception of a divergence in line 5 of stanza two), and since these parts stand in a like order, the stanzas, as ratios, are equivalent.

Note: Post-Primary Rythm in French:

Verse structure in French may be said to be prosodic structure from which primary rhythm has been omitted. As we have seen, all rhythm depends upon the juxtaposition of speech-sounds in some measurable way, the parts which are so juxtaposed being set off by emphasis or by demarcation. Rhythms based upon emphasis are called primary rhythms; their formal parts are distinguished as emphatic and non-emphatic, or as thesis and arsis; rhythms based upon demarcation are called post-primary rhythms; if these occur where primary rhythm is also present, they are measurable according to the number of primary rhythmic intervals which they contain; if, on the other hand, they occur where primary rhythm is not present, as in French, they are measurable only according to the number of syllables which they contain. In French the demarcation of primary caesural divisions is effected by intonation, by the caesurae, and by the slight stress and prolongation given the last syllable before the caesura; in addition to these, which are determinable strictly from the sense, entity

is also used demarcatively, as in rime batelée, rime léonine, rime brisée, rime annexée, etc.

Proportions between primary caesural divisions are possible in French in two ways, intrinsically and extrinsically. They are intrinsically possible if each primary caesural division contains the same number of syllables throughout the strophe; thus the following lines might have been used in the constitution of such proportions:

Non, je ne puis, / tu vois mon trouble et ma faiblesse

4 4 4

Il n'avait pu/ donner d'atteinte/ à la volaille

4 4 4

Et pres de vous/ ce sont des sots/ que tous les hommes.

4 4 4

Such proportions are extrinsically possible through elocution, i.e., through the diseur's making all primary divisions equal in duration; in reading of this kind the divisions consisting of many syllables are read, thus, in the same time as that in which divisions of but few syllables are read; it is here that the question of rhythme compensatoire enters. Since this is a question of conventions of reading, however, it is no concern of ours; we are concerned with uses of speech-sounds only in so far as they are determinate, as materials, according to grammatical formulae of pronunciation, rather than in so far as they are determinate according to conventions of music or of elocution.

Secondary caesural divisions (lines) in French are measurable in two ways: either according to the number of primary caesural divisions which they have, or only according to the number of their syllables. The former case is that in which there are a fixed number of primary caesural divisions in each line (the places of the caesurae may or may not be fixed); the latter is that in which neither the number of caesural divisions nor the place of the caesurae are fixed, the line being thus the first unit, as constituted by the sum of its syllables. As an example of the first we may take the following:

Oui, je viens/dans son temple// adorer/l'Eternel ///
Je viens/ selon l'usage// antique/ et solennel/// etc.

As an example of the second we may take the following:

Ils se battent/---combat terrible!//corps à corps///
Voilà déjà longtemps//que leurs chevaux sont morts///etc.

(Note: / = primary caesura

// = principal primary caesura

/// = secondary caesura.)

The beginning of Racine's Athalie may be analyzed as follows:

Oui, je viens/ dans son temple// adorer/ l'Eternel///
Je viens,/ selon l'usage// antique/ et solennel///
Célébrer/ avec vous// la fameuse/ journée///
Où/ sur le mont Sina// la loi/ nous fut donnée///
Que les temps/ sont changés!// Sitôt que/ de ce jour///
La trompet/te sacrée// annonçait/ le retour///
Du temple,/ orné partout // de festons magnifiques///
Le peuple saint/ en foule// inondait/des portiques///

